

R4780B,C

Protectorelay Flame Safeguard Controls

The R4780B, C are flame safeguard controls used to provide automatic operation and safety of combustion in oil-fired, gas-fired, or oil-gas fired burners with a burning capacity of 500,000 Kcal/h or greater.

They are constructed from reliable components to ensure that the combustion equipment operates without fail in the correct sequence.



Specifications

Model No.	R4780B	R4780C
Flame detector	C7007A, C7008A, or C7012A	C7027, C7035A
Standard flame current	2μA min.	4μA min.
Power consumption	9W +25% max.	
Ambient temperature	-20 to +60°C	
Ambient humidity	90%RH at 40°C	
Mounting of protectorelay	Plug-in to sub-base	
Weight	Approx. 1.0kg	
Auxiliary devices	Flame current tester and Flame simulator	
Flame/alarm indicator LED	Lit: Normal combustion Flashing: Loss of flame whilst burner, ground short-circuit, or false flame signal at start-up	
Accessories	Surge absorber 83968019-109 (for R4780B), 83968019-001 (for R4780C)	

Selection Guide

Model No.	Power supply (50/60Hz)	Sequence timing (under normal temperature, normal humidity, rated voltage)								Flame response
		Pre-purge	Ignition waiting	Ignition trial	Pilot-only	Main trial	Main stabilized	Post-purge	Lockout	
R4780B1003-1	100Vac									When flame current is
R4780B1011-1	200Vac									2μA 1.5 = 0.5s
R4780C1001-2	100Vac	35 ± 5s	7.5 ± 2.5s	4 ± 1s	8.5 ± 3.5s	6.5 ± 2s	8.5 ± 3s	20 ± 8s	max. 30s	When flame current is
R4780C1019-2	200Vac									8.5μA

Sequence at flame failure: Non-recycle (for a pilot system, it is possible to use either an interrupted pilot or an intermittent pilot.)

Contact Ratings

Terminal No.	Load	Contact rating
3	Blower	4A 120Vac 2A 240Vac
4	Ignition transformer	400VA
5	Intermittent pilot	400VA
6	Interrupted pilot	400VA
7	Main valve	800VA
8 · 9 · 10 · 11	Control meter	200VA
21	Alarm	75VA

Total load under normal condition: Max. 6A 200Vac.

Dimensions

(unit:mm)

